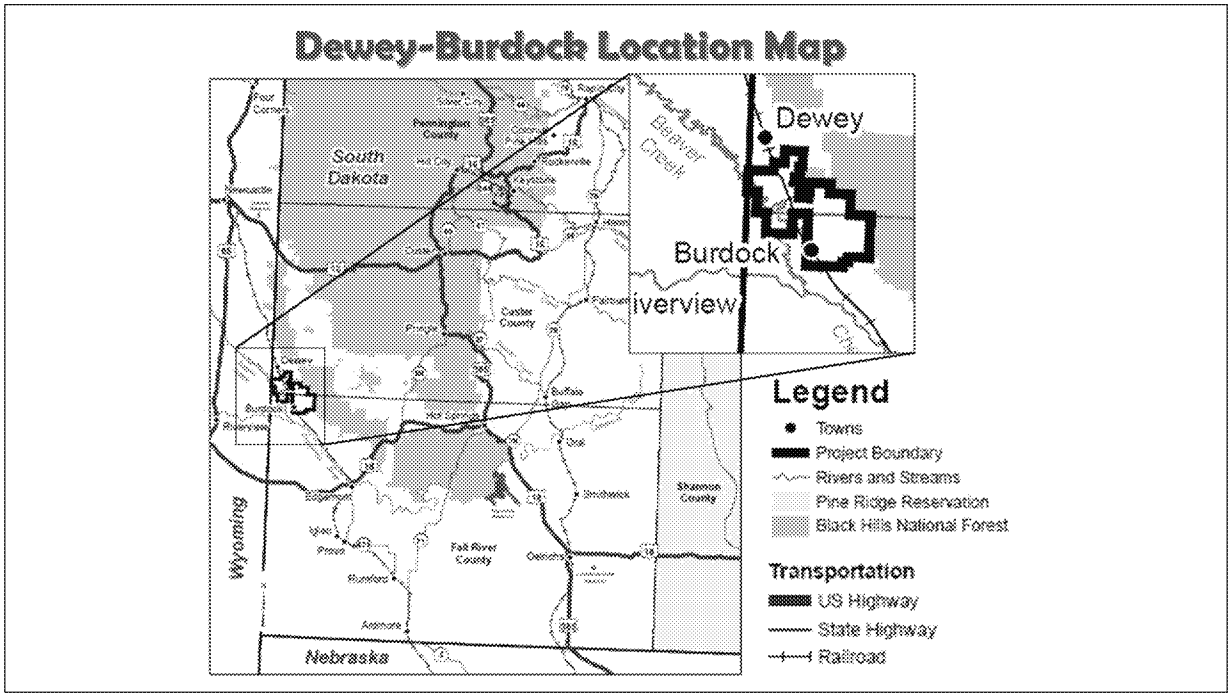


The Dewey Burdock site is located in the SW corner of Custer County and the NW corner of Fall River County on the Wyoming/South Dakota border. In the southern Black Hills. About 45 miles west of the Pine Ridge Reservation. Very close to Cheyenne River which is a concern for Oglala Sioux and Cheyenne River Sioux Tribes since the Cheyenne River borders their reservations.

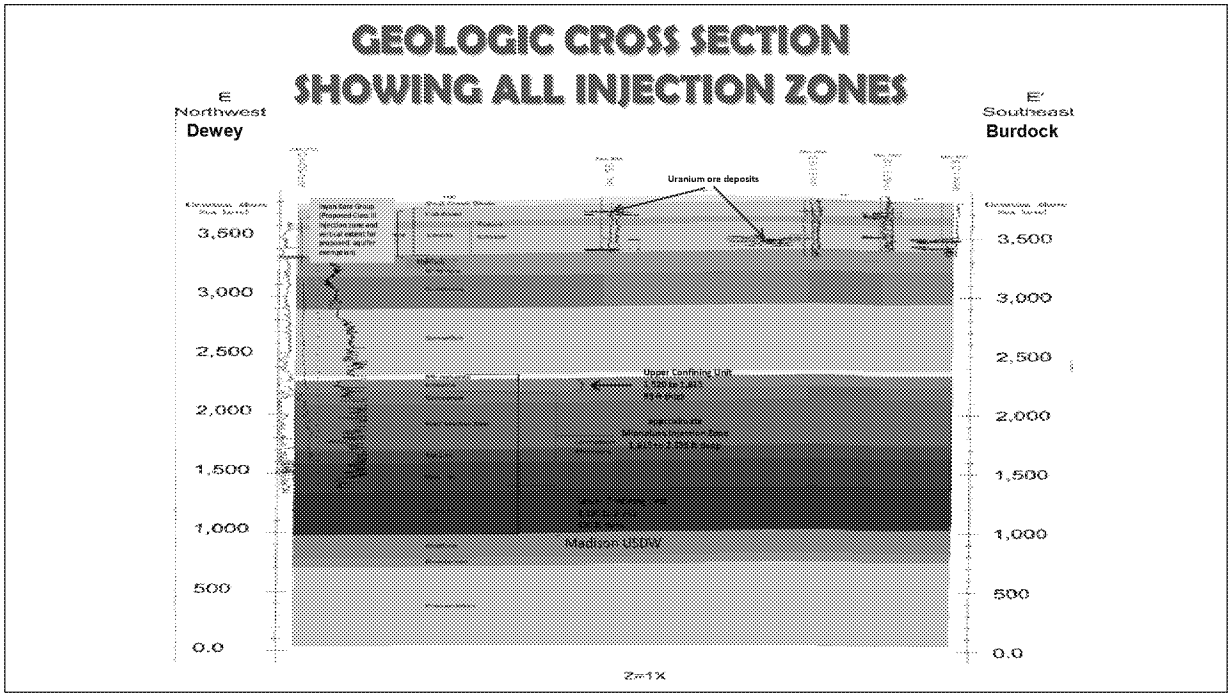
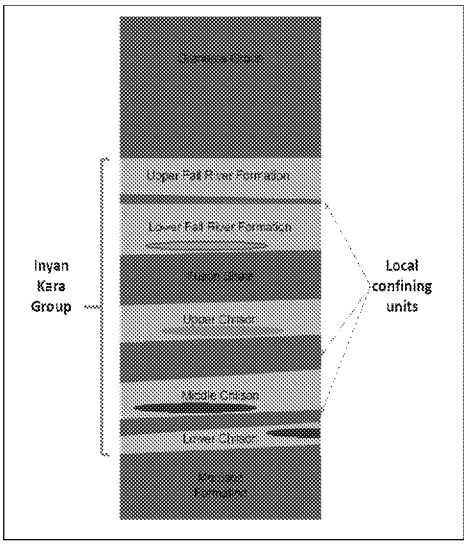
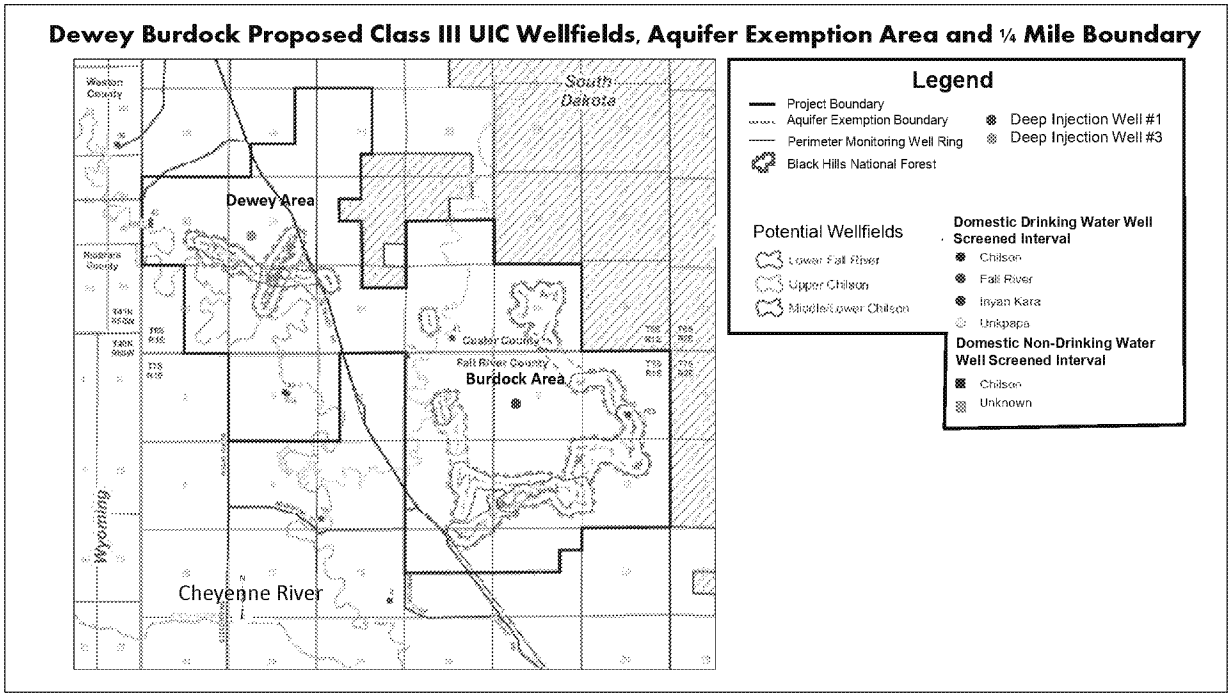


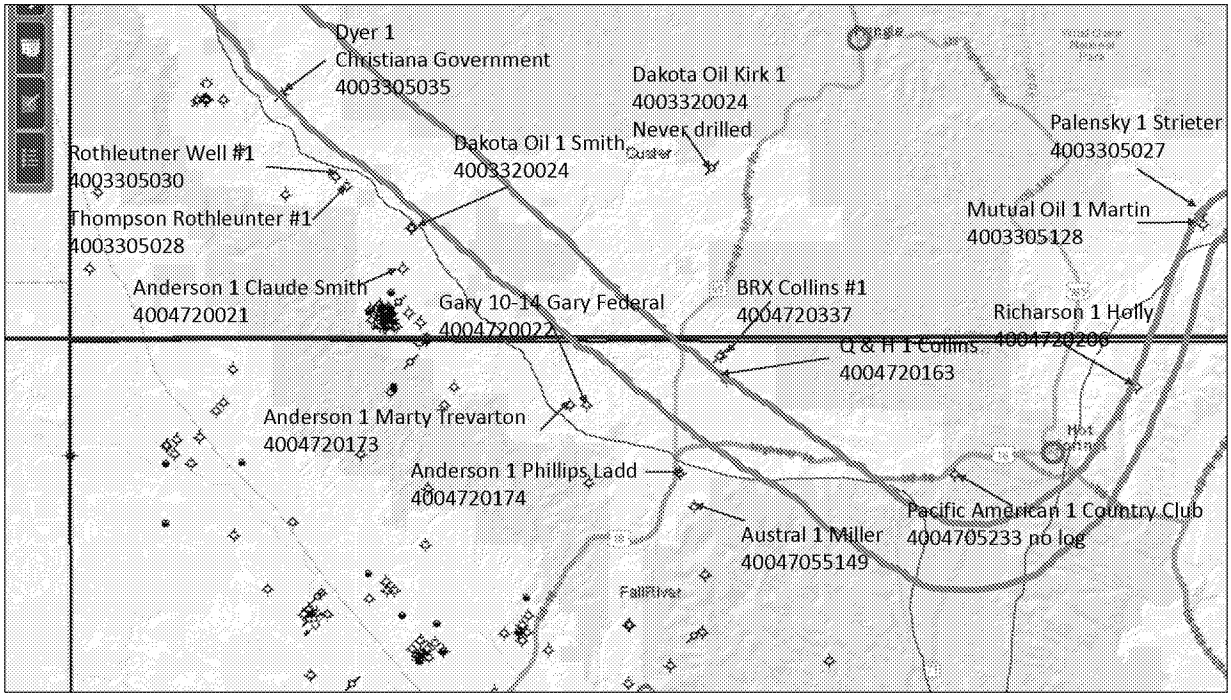
Figure 4. Stratigraphic Column at the Dewey Burdock Site Showing Proposed Injection Zones.
Enclosure to invitation letter

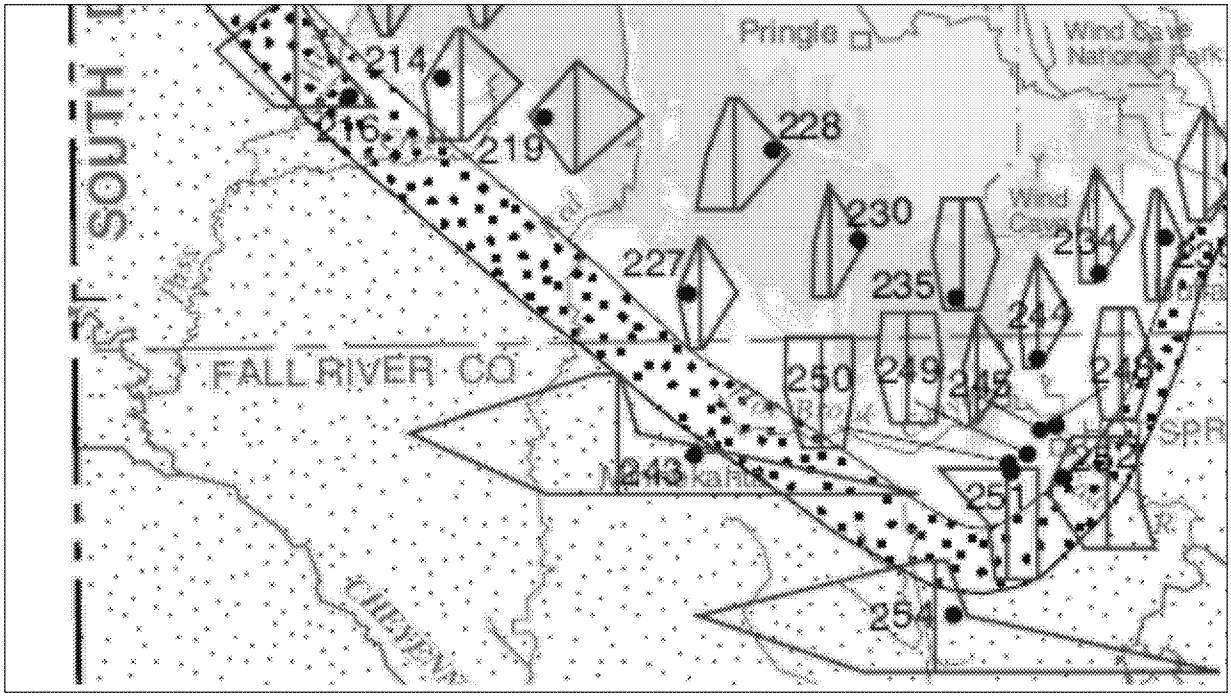


Cross Section of the Inyan Kara aquifers
showing confining zones and uranium ore deposits

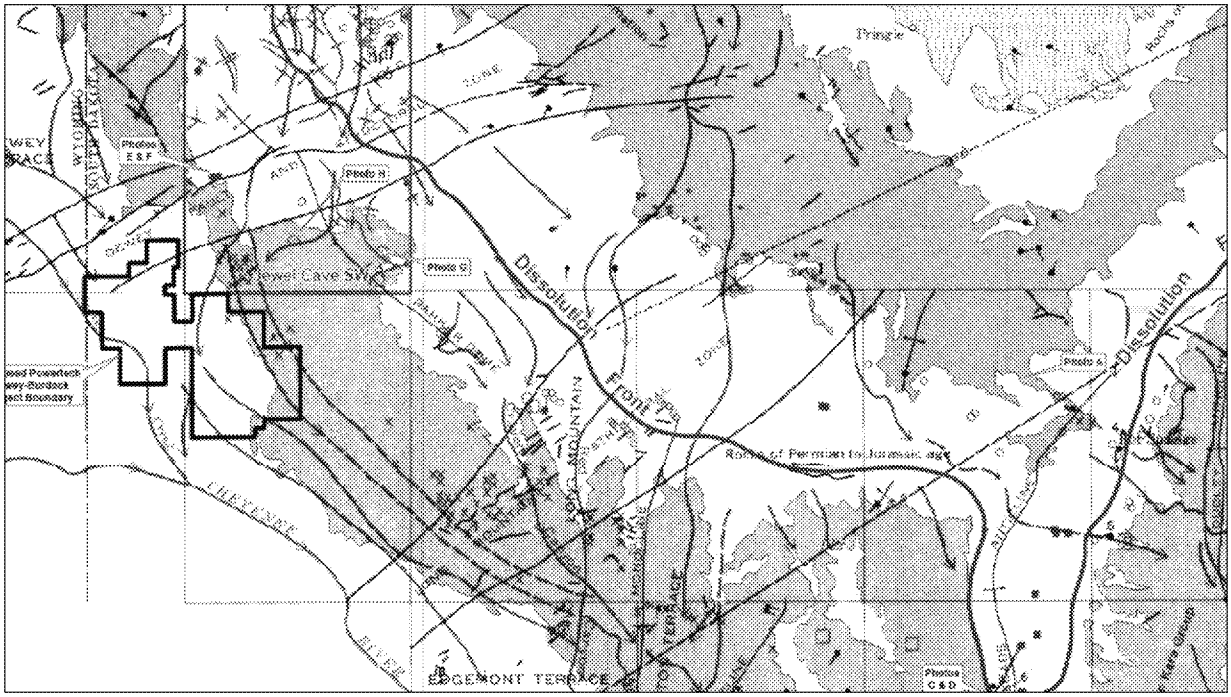


This map shows:
The project boundary (heavy black line)
The Black Hills National Forest land
The Dewey Area & Burdock areas
4 proposed wellfields in the Dewey Area
10 proposed wellfields in the Burdock Area
The Beaver Creek drainage tributaries that flow through the site to the Cheyenne River.
The enlarged square shows the location of the uranium ore deposits, the perimeter monitoring well ring and the aquifer exemption boundary 120 feet outside of perimeter monitoring well ring.
The wellfield colors represent the Inyan Kara aquifer targeted for uranium extraction (see next slide).

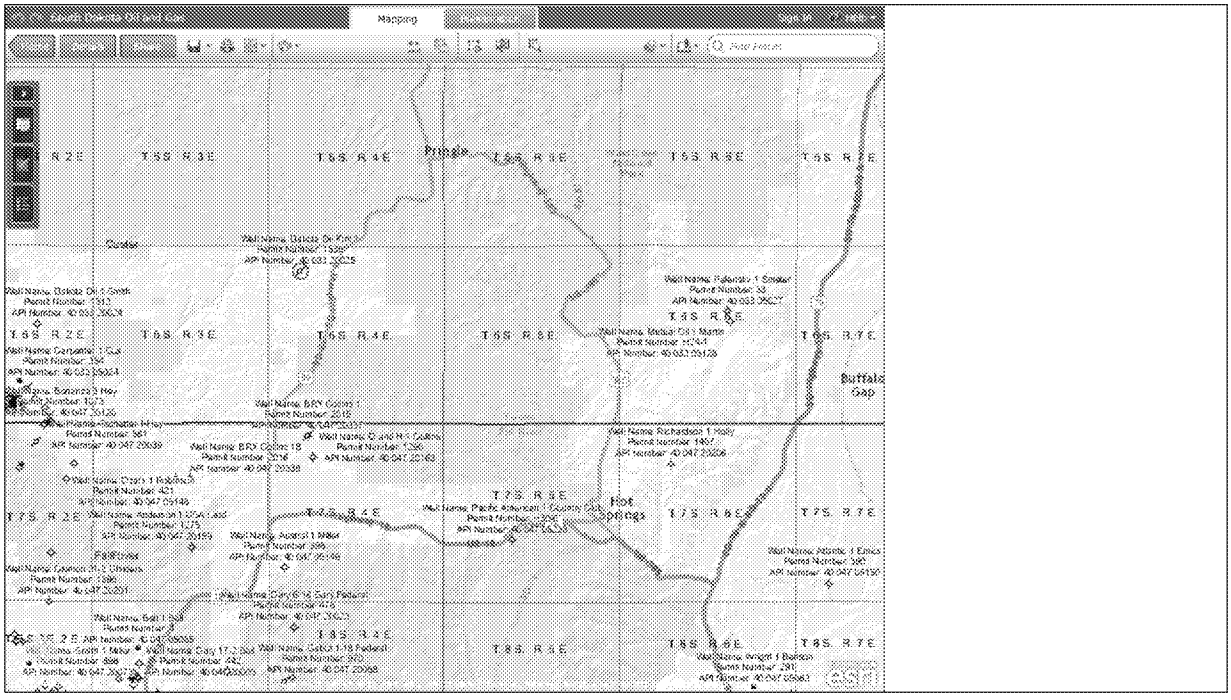

Dyer 1
Christiana Government
4003305035
Dakota Oil Kirk 1
4003320024
Never drilled
Palensky 1 Strieter
4003305027
Rothleutner Well #1
4003305030
Dakota Oil 1 Smith
4003320024
Thompson Rothleunter #1
4003305028
Mutual Oil 1 Martin
4003305128
Anderson 1 Claude Smith
4004720021
Gary 10-14 Gary Federal
4004720022
BRX Collins #1
4004720337
Richarson 1 Holly
4004720200
Q & H 1 Collins
4004720163
Anderson 1 Marty Trevarton
4004720173
Anderson 1 Phillips Ladd
4004720174
Pacific American 1 Country Club
4004705233 no log
Austral 1 Miller
40047055149
Fallriver



From Naus et al 2001 wri 01-4129
Figure 11 p. 24 of pdf



From USGS Prof Paper 763 Plate


Mapping
T6S R2E
T6S R3E
T6S R4E
T6S R5E
T6S R6E
T6S R7E
T7S R2E
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T7S R4E
T7S R5E
T7S R6E
T7S R7E
T8S R2E
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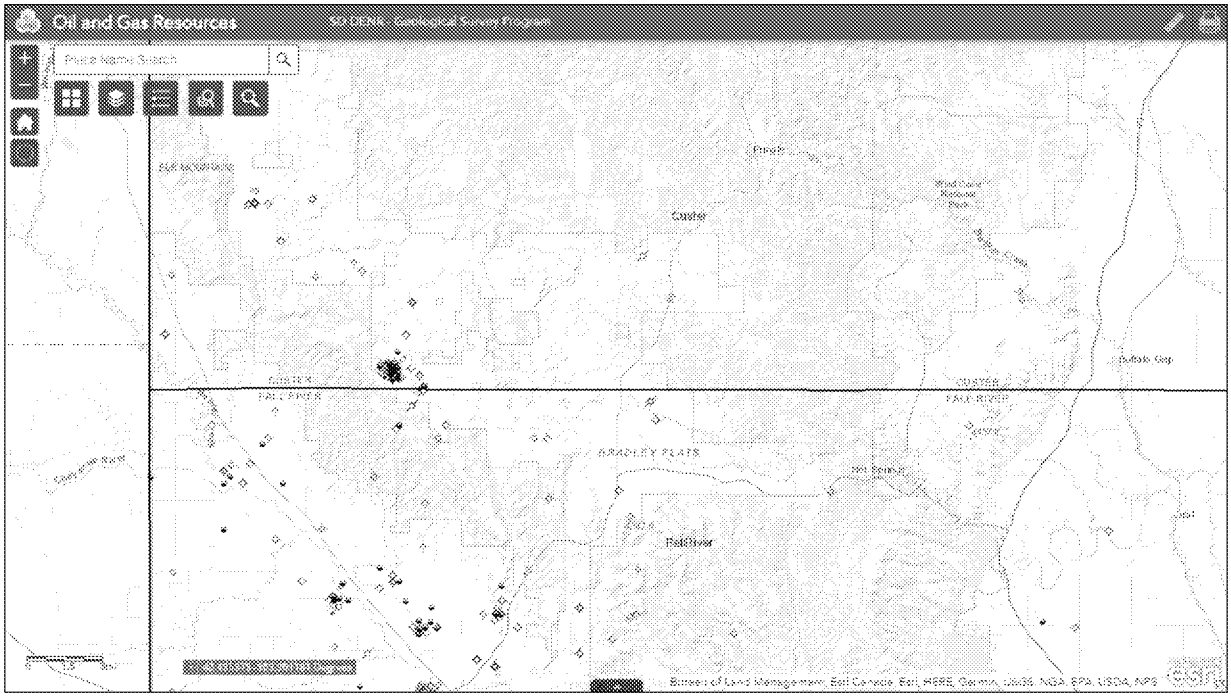
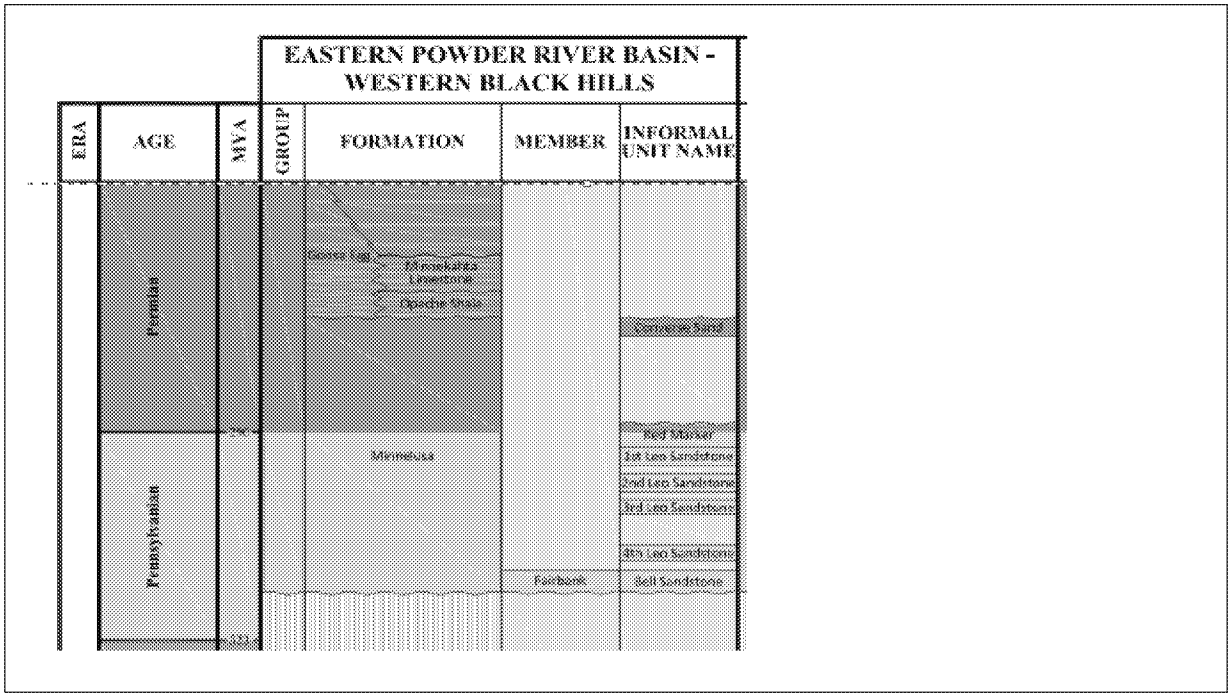
T8S R4E
T8S R5E
T8S R6E
T8S R7E
Buffalo Gap
Hot Springs
Fall River


Oil and Gas Resources
Custer
Buffalo Gap
FALL RIVER
BRADLEY FLATS
Hot Springs
Fall River
Bureau of Land Management, Esri Canada, Esri, HERE, Garmin, USGS, NGA, EPA, USDA, NPS

Formation Name	Burdock Area		Dewey Area		Lithology
Minnelusa Formation Minnelusa Injection Zone Red Marker top Minnelusa Lower Confining Zone	2615 2927 2395	2395 2765	1950 2370 2794	2794 3190	Porous sorted sandstones with interbedded shale and anhydrite (porosity zone) Interbedded cemented sandstones with dolomite, shale and anhydrite

3.3.2 The Lower Confining Zone for Minnelusa Injection Zone

The Lower Minnelusa Formation is the lower confining zone for the Minnelusa injection zone, hydraulically separating it from the underlying Madison Formation. Well logs for oil and gas test wells surrounding the Dewey-Burdock Project Site show the presence of specific markers within the Minnelusa formation. The most prevalent marker is indicated as the Red Marker. This shale layer sits approximately 400-434 ft below the top of the Minnelusa formation. Although the Red Marker shale can provide confinement, it is possible that the Leo sands may be present and available as potential injection targets below that depth. Primary confinement below the Leo sands is a sixteen foot thick shale layer indicated on gamma-ray logs near the project area, and located at a depth approximately 328 ft below the top of the Red Marker. This shale layer is correlatable between nearby deep oil and gas test wells, and provides area-wide confinement between injection sands and the Madison Formation below. Details for the identification of this primary shale layer are available within the Administrative Record for this permit decision (LCZ log display.png and LCZ map display.png). In addition to this primary lower confinement, the Minnelusa formation below that depth provides additional confinement between the injection intervals and the Madison formation in the form of additional shales, anhydrites, and limestones averaging a net thickness of 400 ft. This additional confinement is described in Section 3.3.3., below.


EASTERN POWDER RIVER BASIN -
WESTERN BLACK HILLS
ERA
AGE
MYA
GROUP
FORMATION
MEMBER
INFORMAL UNIT NAME
Permian
Pennsylvanian
Minnelusa
Fairbank
Red Bell Sandstone